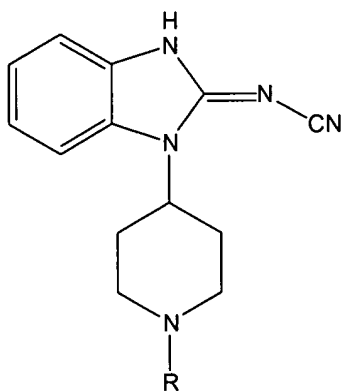


I. Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

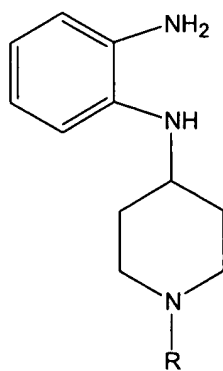
Listing of Claims

Claim 1. (Original): A process for synthesizing a compound of formula (V):



(V)

comprising reacting a compound of formula (IV):



(IV)

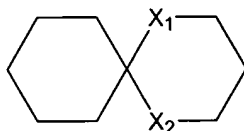
with (A)(A₁)-cyanocarbonimide to form a compound of formula (V);

wherein A and A₁ are independently selected from methyl, ethyl propyl, phenyl and benzyl; and wherein,

R is Z-R₁, wherein

Z is selected from the group consisting of a bond, straight or branched C₁₋₆ alkylene, -NH-, -CH₂O-, -CH₂NH-, -CH₂N(CH₃)-, -NHCH₂-, -CH₂CONH-, -NHCH₂CO-, -CH₂CO-, -COCH₂-, -CH₂COCH₂-, -CH(CH₃)-, -CH=, -O- and -HC=CH-, wherein the carbon and/or nitrogen atoms are unsubstituted or substituted with one or more lower alkyl, hydroxy, halo or alkoxy group;

R₁ is selected from the group consisting of hydrogen, C₁₋₁₀ alkyl, C₃₋₁₂cycloalkyl, C₂₋₁₀alkenyl, amino, C₁₋₁₀alkylamino-, C₃₋₁₂cycloalkylamino-, -COOV₁, -C₁₋₄COOV₁, cyano, cyanoC₁₋₁₀alkyl-, cyanoC₃₋₁₀cycloalkyl-, NH₂SO₂-, NH₂SO₂C₁₋₄alkyl-, NH₂SOC₁₋₄alkyl-, aminocarbonyl-, C₁₋₄alkylaminocarbonyl-, diC₁₋₄alkylaminocarbonyl-, benzyl, C₃₋₁₂ cycloalkenyl-, a monocyclic, bicyclic or tricyclic aryl or heteroaryl ring, a hetero-monocyclic ring, a hetero-bicyclic ring system, and a spiro ring system of the formula (XI):



(XI)

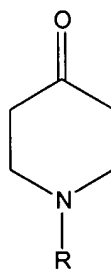
wherein X₁ and X₂ are independently selected from the group consisting of NH, O, S and CH₂; and wherein said alkyl, cycloalkyl, alkenyl, C₁₋₁₀alkylamino-, C₃₋₁₂cycloalkylamino-, or benzyl of R₁ is optionally substituted with 1-3 substituents selected from the group consisting of halogen, hydroxy, C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, nitro, trifluoromethyl-, cyano, -COOV₁, -C₁₋₄COOV₁, cyanoC₁₋₁₀alkyl-, -C₁₋₅(=O)W₁, -C₁₋₅NHS(=O)₂W₁, -C₁₋₅NHS(=O)W₁, a 5-membered heteroaromaticC₀₋₄alkyl-, phenyl, benzyl, benzyloxy, said phenyl, benzyl, and benzyloxy optionally being substituted with 1-3 substituents selected from the group consisting of halogen, C₁₋₁₀ alkyl-, C₁₋₁₀ alkoxy-, and cyano; and wherein said C₃₋₁₂ cycloalkyl, C₃₋₁₂ cycloalkenyl, monocyclic, bicyclic or

tricyclic aryl, heteroaryl ring, hetero-monocyclic ring, hetero-bicyclic ring system, or spiro ring system of the formula (XI) is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, nitro, trifluoromethyl-, phenyl, benzyl, phenyloxy and benzyloxy, wherein said phenyl, benzyl, phenyloxy or benzyloxy is optionally substituted with 1-3 substituents selected from the group consisting of halogen, C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, and cyano;

wherein V₁ is independently selected from H, C₁₋₆ alkyl, C₃₋₆ cycloalkyl, benzyl and phenyl; and

wherein W₁ is hydrogen, C₁₋₁₀ alkyl, C₃₋₁₂ cycloalkyl, C₁₋₁₀ alkoxy, C₃₋₁₂ cycloalkoxy, -CH₂OH, amino, C₁₋₄alkylamino-, or diC₁₋₄alkylamino-.

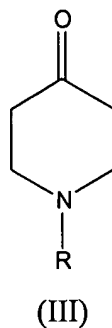
Claim 2. (Original): The process of claim 1, wherein the compound of formula (IV) is formed by subjecting a compound of formula (III):



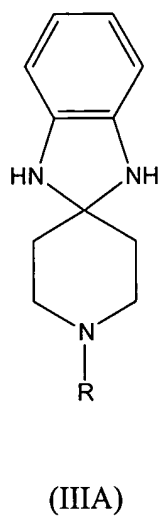
(III)

to reductive amination with 1,2-phenylenediamine, an acid and a reducing agent to form a compound of formula (IV).

Claim 3. (Original): The process of claim 1, wherein the compound of formula (IV) is formed by subjecting a compound of formula (III):

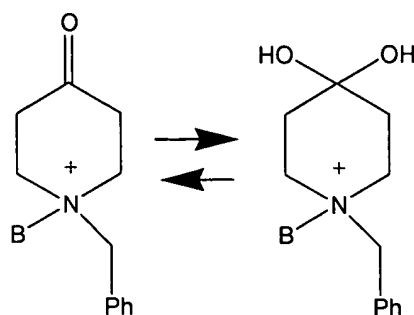


to amination with 1,2-phenylenediamine and an acid to form a compound of formula (IIIA):



and reducing the compound of (IIIA) with a reducing agent to form a compound of formula (IV).

Claim 4. (Currently Amended): The process of claim 2 ~~or~~ 3, wherein the compound of formula (III) is formed by reacting a compound of formula (II):

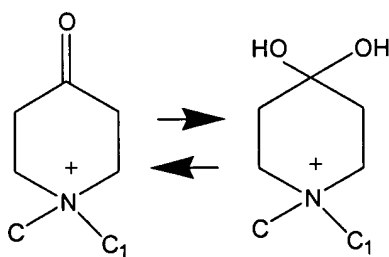


(II)

with R-amine to form a compound of formula (III);

wherein B is selected from the group consisting of methyl, ethyl and propyl.

Claim 5. (Currently Amended): The process of claim 2-~~or~~3, wherein the compound of formula (III) is formed by reacting a compound of formula (IIA):

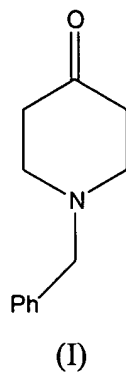


(IIA)

with R-amine to form a compound of formula III;

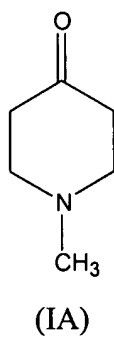
wherein C and C₁ are independently selected from the group consisting of methyl, ethyl and propyl.

Claim 6. (Original): The process of claim 4, wherein the compound of formula (II) is formed by reacting a compound of formula (I):



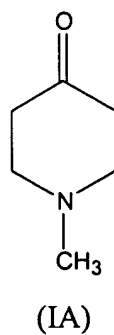
with an C₁₋₃alkyl-halogen to form a compound of formula (II).

Claim 7. (Original): The process of claim 4, wherein the compound of formula (II) is formed by reacting a compound of formula (IA):



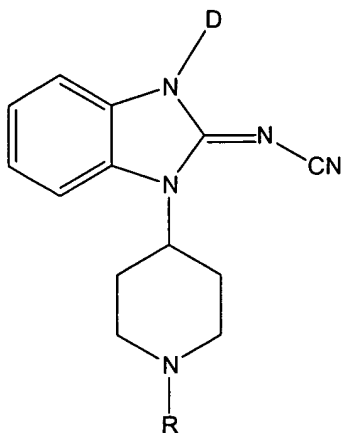
with a benzyl-halogen to form a compound of formula II.

Claim 8. (Original): The process of claim 4, wherein the compound of formula (IIA) is formed by reacting a compound of formula (IA):



with (C)(C₁)sulphate to form a compound of formula (IIA).

Claim 9. (Original): The process of claim 1, further comprising reacting a compound of formula (V) with a D-halogen to form a compound of formula (VI):



(VI)

wherein D is selected from the group consisting of C₁₋₁₀ alkyl, C₃₋₁₂ cycloalkyl, C₃₋₁₂ cycloalkylC₁₋₄alkyl-, C₁₋₁₀ alkoxy, C₃₋₁₂ cycloalkoxy-, C₁₋₁₀ alkyl substituted with 1-3 halogen, C₃₋₁₂ cycloalkyl substituted with 1-3 halogen, C₃₋₁₂ cycloalkylC₁₋₄alkyl-substituted with 1-3 halogen, C₁₋₁₀ alkoxy substituted with 1-3 halogen, C₃₋₁₂ cycloalkoxy- substituted with 1-3 halogen, -COOV₁, -C₁₋₄COOV₁, -CH₂OH, -SO₂N(V₁)₂, hydroxyC₁₋₁₀alkyl-, hydroxyC₃₋₁₀cycloalkyl-, cyanoC₁₋₁₀alkyl-, cyanoC₃₋₁₀cycloalkyl-, -CON(V₁)₂, NH₂SO₂C₁₋₄alkyl-, NH₂SOC₁₋₄alkyl-, sulfonylaminoC₁₋₁₀alkyl-, diaminoalkyl-, -sulfonylC₁₋₄alkyl, a 6-membered heterocyclic ring, a 6-membered heteroaromatic ring, a 6-membered heterocyclicC₁₋₄alkyl-, a 6-membered heteroaromaticC₁₋₄alkyl-, a 6-membered aromatic ring, a 6-membered aromaticC₁₋₄ alkyl-, a 5-membered heterocyclic ring optionally substituted with an oxo or thio, a 5-membered heteroaromatic ring, a 5-membered heterocyclicC₁₋₄alkyl- optionally substituted with an oxo or thio, a 5-membered heteroaromaticC₁₋₄alkyl-, -C₁₋₅(=O)W₁, -C₁₋₅(=NH)W₁, -C₁₋₅NHC(=O)W₁, -C₁₋₅NHS(=O)₂W₁, -C₁₋₅NHS(=O)W₁, and a 5-membered heteroaromatic ring optionally substituted with 1-3 lower alkyl

wherein V_1 is independently selected from H, C_{1-6} alkyl, C_{3-6} cycloalkyl, benzyl and phenyl; and

wherein W_1 is hydrogen, C_{1-10} alkyl, C_{3-12} cycloalkyl, C_{1-10} alkoxy, C_{3-12} cycloalkoxy, $-CH_2OH$, amino, C_{1-4} alkylamino-, or diC_{1-4} alkylamino-; and

wherein each V_1 and W_1 is the same or different.

Claim 10. (Original): The process of claim 1, wherein R_1 is selected from the group consisting of C_{1-10} alkyl and C_{3-12} cycloalkyl.

Claim 11. (Original): The process of claim 1, wherein R is cyclooctyl.

Claim 12. (Original): The process of claim 1, wherein A and A_1 are both phenyl.

Claim 13. (Original): The process of claim 1, wherein the reaction is performed in a solvent.

Claim 14. (Original): The process of claim 13, wherein the solvent is selected from acetonitrile, dimethylformamide, or a mixture thereof.

Claim 15. (Original): The process of claim 1, wherein the reaction is performed at a temperature of about 50°C to about 125°C or about 75°C to about 125°C or about 100°C .

Claim 16. (Original): The process of claim 15, wherein a portion of the reaction is performed under ambient temperature.

Claim 17. (Original): The process of claim 1, comprising isolating an intermediate cyanoimide.

Claim 18. (Original): The process of claim 17, comprising preparing the compound of formula (V) in a one pot reaction in acetonitrile, dimethylformamide, or a mixture thereof.

Claim 19. (Original): The process of claim 2, wherein the reductive amination is performed in a suitable solvent.

Claim 20. (Original): The process of claim 19, wherein the solvent is dichloroethane, tetrahydrofuran or a mixture thereof.

Claims 21-76. (Canceled)